

Maryland Sea Grant 2012 NSGO Review

Dorn Carlson



MD SG Management – *January 2012*

- Management staff -- all full time
 - Fredrika Moser, Interim Director (new)
 - Douglas Lipton, Extension Director and K-12 Education
 - (vacant, Asst. Director, Research and Higher Education)
 - Bonny Marcellino, Assistant Director for Administration
 - Jeffrey Brainard, Assistant Director for Communications (new)
 - Dan Jacobs, Information Technology Manager
- Size of program – “Large”

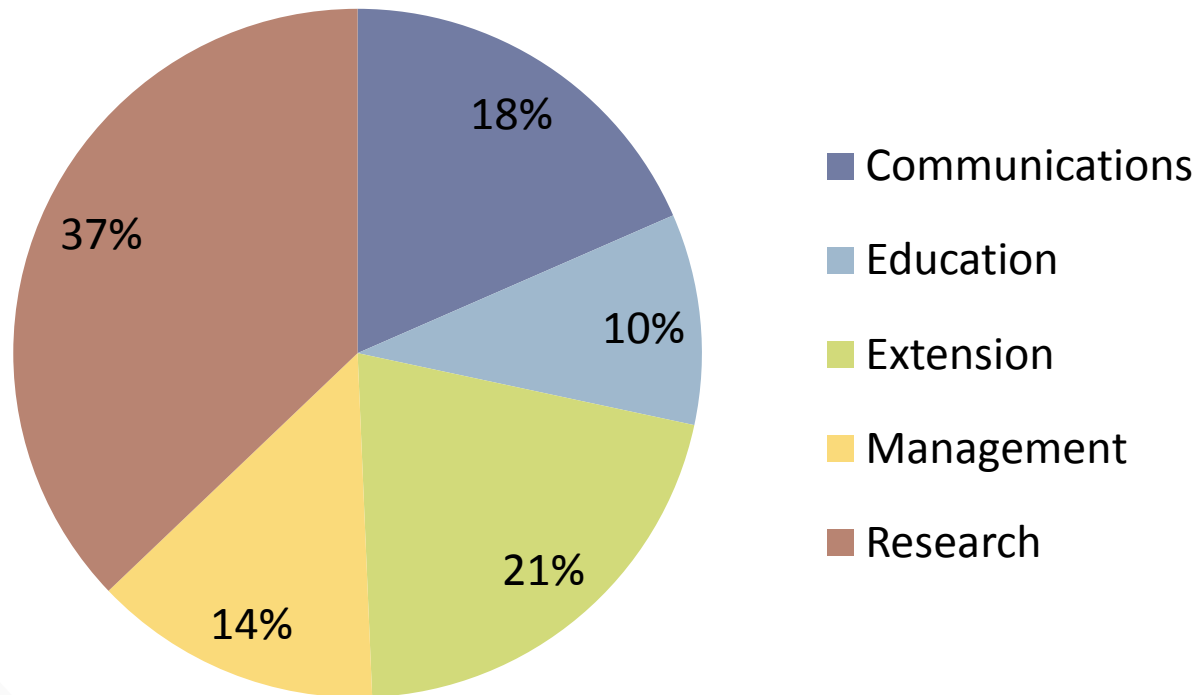
MD SG Management

- Total FTEs on staff (information in *2010* Annual report metrics)

Functional Area	# of individuals	# of FTEs supported by SG	# of FTEs supported by match/leverage
Mgt/Admin	11	1.74	6.32
Comm.	6	1.88	1.25
Ext.	14	4.43	8.00
Education	7	2.83	0.13
Research	42	9.69	2.62

MD SG 2010 Core Budget (Fed + Match) towards each Functional Area

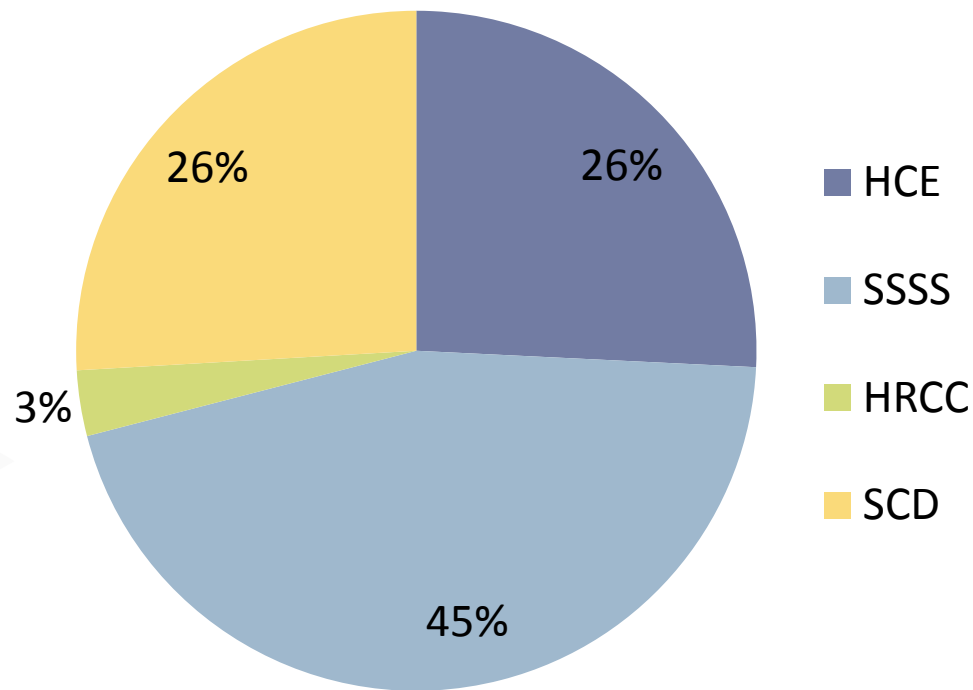
2010
Effort by Functional Area



MD SG 2010 Budget towards each Focus Area

(Fed + Match + Pass-Through + Managed Leveraged Funds)

Effort by Focus Area



Significant MD SG Changes

- Fredrika Moser new Interim Director
 - December. Formerly Assistant Director for Research and Higher Education
 - Assistant Director post now vacant
- Jeffrey Brainard hired as Assistant Director for Communications
 - September 2011.
- UME created two new Sea Grant Extension “Watershed-Restoration” positions.
 - Search for positions in progress, hires expected in March 2012.

MD SG Program RFP Process

- Regional component to RFP with VA, DE
- Off-cycle RFP in 2010 to get in sync with rest of network, regular two-year RFP in 2011
- Written peer reviews of preproposals, as well as full proposals
- *Extension panel review of pre and full proposals*
- Preproposals reviewed by External Advisory Board
- *Full proposals require separate “Outreach Plan”*
- Multi-institution proposals (avg. institutions/proposal > 2)
- New PIs encouraged (more than half selected PIs, co-PIs new)
- Timeline
 - RFP written Dec 2010
 - Preproposals due Feb 2011 (regional, Mar 2011)
 - Full proposals due July 2011
 - Letter of intent Sep 2011

MDSG RFP Process for 2012-2013 Projects

Research Metrics

Core Proposals	# of Proposals	# of institutions represented	# of proposals from home institutions
Pre-proposals submitted	29	9	19
Full proposals submitted	12	6	9
Proposals Funded	8	5	6

Contribution to National Performance Measures and Metrics

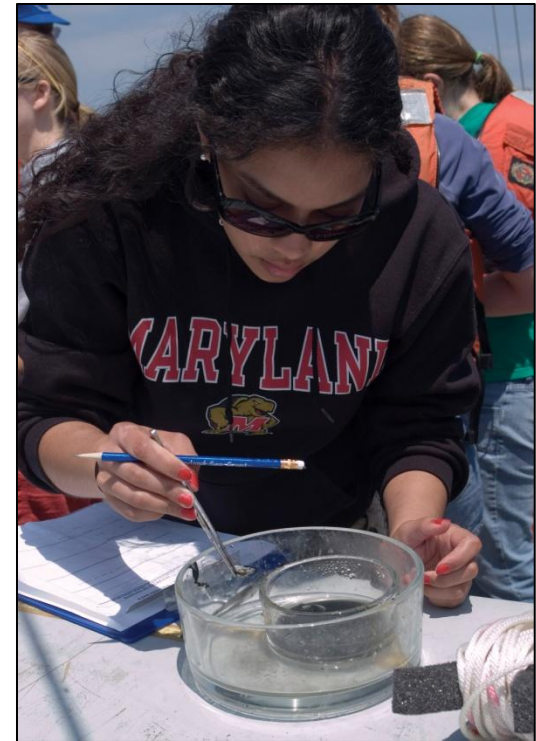
Focus Area	Metric/Performance Measure	Actual
	Economic (market and non-market) benefits derived from Sea Grant activities. (Nat. target: \$82.7M)	\$4.24M
	Job retained - Economic (market and non-market) benefits derived from Sea Grant activities. (Nat. target: 956)	134
SSSS	Number of fishers who adopt and implement responsible harvesting techniques and practices. (Nat. target: 3535)	2,000
SCD	Number of coastal communities who have adopted/implement sustainable-economic and environmental-development practices and policies. (106)	3
HCE	Number of coastal communities who have restored degraded ecosystems as a result of Sea Grant activities. (41)	2

MD SG Impacts

- MD SG Education serves underrepresented groups

Over the past few years, MDSG determined that the best chance for impacts to underrepresented groups would be to focus at the undergraduate level with special emphasis on the REU program.

MDSG has become a national leader in this regard — with collaborations with several programs including the NSF, ASLO, Hampton University's ASLOMP Program, and the NSF-funded Institute for Broadening Participation, as well as a new effort to develop a joint REU program with universities in Puerto Rico.



MD SG Impacts

- Maryland Sea Grant Extension worked with the Chesapeake Bay Seafood Industries Association on flash freezing as a technique to extend the shelf life of blue crabs.

Blue crab seafood processors needed a faster and cheaper technique than pasteurizing for extending the shelf life of blue crab meat and creating a year-round product that could compete with imported crabs.

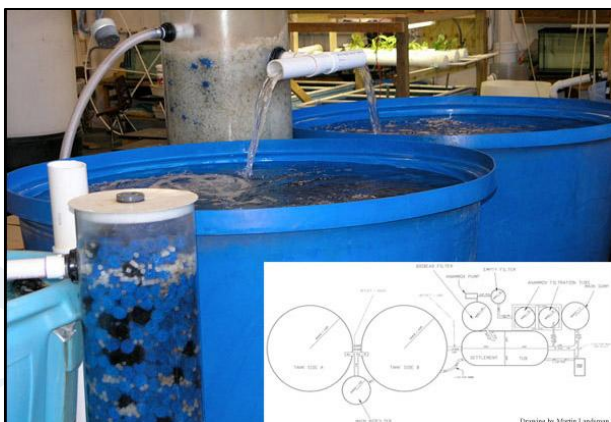
The team worked out and tested procedures and did cost-benefit analyses.

A total of six processing companies now use cryogenic freezing techniques, three with equipment purchased through Disaster Relief Funds. It was a “fantastically successful operation,” said the executive director of the Chesapeake Seafood Industries Association.



MD SG Impacts

- Maryland Sea Grant Extension improves the science training and job skills of at-risk youths



Maryland Sea Grant Extension education specialists organized workshops to train Maryland Department of Juvenile Services (DJS) teachers in how to operate an aquaculture system to train at-risk students in a variety of sciences including biology, chemistry, mathematics, nutrition and small-scale engineering.

Five separate Juvenile Youth Centers in Western Maryland now use Aquaculture-in-Action to train juveniles in science and job skills. An average of 100 students per year have earned their General Equivalency Diploma (GED) through the program.

The Maryland Department of Labor and Licensing now awards an Aquatic Sciences Certificate to an average of 50 students per year.

MD SG Impacts

- Maryland Sea Grant Extension helped to develop a loan program for new oyster growers

Economists and aquaculture business specialists worked closely with the Maryland Resource Based Industries Development Corporation (MARBIDCO) to implement a low-interest and subsidized loan program for new oyster growers. It was funded with a combination of state funds and Fishery Disaster Relief Funds. Sea Grant Extension helped to design the loan program and helped applicants with the process.

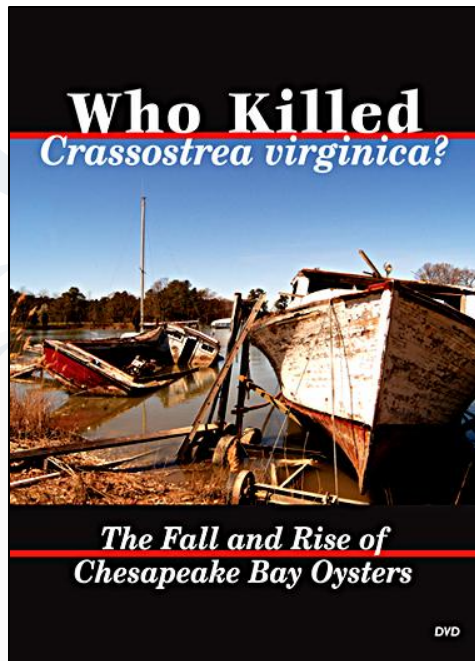


MD SG Impacts

- **Synthesis as an impact**
 - MDSG brought together science experts with social scientists and extension faculty to provide detailed analysis and strategies to resolve complex environmental issues for MD constituents. These included working with Baltimore Port Authority on recommendations for disposal and reuse of dredged material and building an EBFM framework for Chesapeake Bay fisheries.
 - MD SG's strategic recognition of a synthesis and facilitation niche in the Bay area, and its skill in filling that niche, were highlighted in the Site Review.

MD Sea Grant Impacts

- Maryland Sea Grant's communications unit debuted a feature documentary about oysters, "Who Killed *Crassostrea virginica*?"



The hour-long film provided a science-based analysis of long-standing controversies about oyster harvesting and recent plans for oyster restoration. Maryland Public Television agreed to broadcast the documentary, which was also featured at a film festival and on a radio program that reached 20,000 listeners.

2010 Research Accomplishments

- Long-term research by Dr. Kaushal quantifies the potential of stream restoration efforts to reduce nitrogen loads in rapidly urbanizing watersheds. (Research accomplishment Annual Report 2010)

In 2010, the project produced several peer-reviewed journal articles, and the cumulative training of 5 graduate and 2 undergraduate student researchers.

PI met with Maryland Department of Natural Resources and Center for Watershed Protection, Baltimore City Department of Public Works and Baltimore County Department of Environmental Protection Regulation, Philadelphia Department of Water. He was an invited panelist for an EPA-sponsored workshop regarding impacts of interactions between climate and nitrogen, and served on a Climate Information for User Needs (CIRUN) workshop for managers regarding managing water quality and human health impacts.

New research in the coming year includes developing a catalogue for management of potential stream restoration techniques and their effectiveness in improving water quality.

2010 Research Accomplishments

- MD SG research produces a deeper understanding of how underwater grasses grow and shares these findings with policy-makers working to restore this important vegetation.



Submerged aquatic vegetation (SAV) plays an important ecological role by improving water quality and providing food and refuge for marine life. But they have declined in the Chesapeake, and restoration efforts have shown mixed results.

Michael Kemp and his researchers documented the conditions that best promote restoration and conservation of submerged aquatic vegetation. The restoration of damaged or destroyed grass beds requires better growing conditions than those required to maintain existing beds, which has implications for managing restoration.

Results have been shared with resource agencies through the Chesapeake Bay Program's SAV Workgroup. The findings will aid resource managers in constructing models to simulate the effects of different management methods and of climate variation on the Bay's SAV restoration.

Sources (unless otherwise noted)

- MD SG Briefing Book
- MD SG Request for Proposals
- Planning, Implementation, and Evaluation Resources (PIER)
<https://pier.seagrants.noaa.gov>
- Personal Communication with Program